

IN THE CLAIMS

*Please cancel claims 1-9 and 18-27:*

1-9. (Canceled)

10. (Original) A slider lapping system, comprising:

a lapping plate for lapping a slider which includes at least one magnetic head with a read sensor;

a moving mechanism which moves the lapping plate relative to the slider;

a coil which produces a magnetic field around the slider during the lapping;

processing circuitry which is operative to monitor a readback signal amplitude of the read sensor during the lapping; and

control circuitry coupled to the moving mechanism and the processing circuitry, which is operative to cause the lapping to terminate based on the monitoring of the readback signal amplitude.

11. (Original) The slider lapping system of claim 10, wherein the control circuitry is operative to cause the lapping of the slider to terminate when the readback signal amplitude is above a predetermined minimum threshold or reaches its peak value.

12. (Original) The slider lapping system of claim 10, further comprising:

the processing circuitry being further operative to monitor a resistance of the read sensor during the lapping; and

the control circuitry being further operative to cause the lapping to terminate based on the monitoring of the readback signal amplitude and the resistance of the read sensor.

13. (Original) The slider lapping system of claim 10, further comprising:

the processing circuitry being further operative to monitor a resistance of the read sensor during the lapping; and

the control circuitry being further operative to cause the lapping to terminate when the readback signal amplitude is above a predetermined amplitude threshold or reaches its peak value, and the resistance is within a predetermined resistance range.

14. (Original) The slider lapping system of claim 10, further comprising:  
the coil being driven to produce a magnetic field with a direct current (DC).

15. (Original) The slider lapping system of claim 10, further comprising:  
the coil being driven to produce a magnetic field at a predetermined frequency.

16. (Original) The slider lapping system of claim 10, further comprising:  
the coil being driven to produce a magnetic field at a predetermined frequency;  
and

the processing circuitry being further operative to perform a Fast Fourier Transform (FFT) or a Phase-Locked-Loop (PLL) at the predetermined frequency for use in monitoring the readback signal amplitude.

17. (Original) The slider lapping system of claim 10, further comprising:  
the processing circuitry being further operative to calculate an asymmetry measurement of the read sensor; and

the control circuitry being further operative to cause the lapping to terminate based on the asymmetry measurement of the read sensor.

18-27. (Canceled)